

**IN THE CLAIMS**

Please amend claims 1, 14, 27, and 40-46 as indicated below.

1. (Currently Amended) In a computer system, a method comprising:  
generating one or more actors on a server, wherein each of said one or more  
actors is a functional component of a distributed application;  
linking said one or more actors on the server in a first hierarchical tree;  
generating a dataset corresponding to a second hierarchical tree, wherein the  
second hierarchical tree is a subset of the first hierarchical tree;  
sending said dataset to a client;  
replicating the second hierarchical tree in said client using said dataset, wherein  
said replicating comprises generating one or more peer actors on the client,  
and wherein ~~the~~ said one or more peer actors on the client comprise  
executable code for performing tasks that are in addition to tasks  
performed by the one or more actors on the server; and  
providing a communication link between each of said one or more peer actors of  
the replicated second hierarchical tree on the client and a corresponding  
actor of the second hierarchical tree on the server.
2. (Previously Presented) The method of claim 1,  
wherein each node in said first hierarchical tree comprises a source actor;  
wherein each node in the replicated second hierarchical tree comprises a member  
actor; and  
wherein each member actor corresponds to a respective source actor.
- 3-5. (Canceled)
6. (Original) The method of claim 1, wherein each said actor comprises a tree of  
hierarchically linked nodes, said nodes comprising one or more objects.

7. (Original) The method of claim 6, wherein said nodes further comprise one or more nested actors.
8. (Previously Presented) The method of claim 1, wherein said sending said dataset comprises sending said dataset via a secure communication network.
9. (Previously Presented) The method of claim 2, wherein said generating a dataset comprises:
  - obtaining inclusion criteria from one or more parameter sets;
  - traversing said first hierarchical tree to determine nodes of said first hierarchical tree that comply with said inclusion criteria;
  - obtaining a pre-initialized object for each of said nodes that comply with said inclusion criteria;
  - generating a client graph comprising said pre-initialized objects.
10. (Previously Presented) The method of claim 9, wherein said traversing said first hierarchical tree is on a node-by-node basis starting from the root node and proceeding through all the leaf nodes.
11. (Previously Presented) The method of claim 9, wherein said dataset is indicative of the full client graph.
12. (Previously Presented) The method of claim 2, wherein said dataset comprises a subgraph for updating the replicated second hierarchical tree of said client.
13. (Original) The method of claim 9, wherein said pre-initialized object comprises methods and attributes for construction and initialization of said client graph.
14. (Currently amended) A computer program product comprising:
  - a computer readable medium having computer program code embodied therein for

creating and deploying client side actors for a server application, said computer readable medium comprising computer program code configured to cause a computer to:

generate one or more actors on a server, wherein each of said one or more actors is a functional component of a distributed application;

link said one or more actors on the server in a first hierarchical tree;

generate a dataset corresponding to a second hierarchical tree, wherein the second hierarchical tree is a subset of the first hierarchical tree;

send said dataset to a client;

replicate the second hierarchical tree in said client using said dataset, wherein to replicate the second hierarchical tree, the computer program code is further configured to cause a computer to generate one or more peer actors on the client, and wherein ~~the~~ said one or more peer actors on the client comprise executable code for performing tasks that are in addition to tasks performed by the one or more actors on the server; and

provide a communication link between each of said one or more peer actors of the replicated second hierarchical tree on the client and a corresponding actor of the second hierarchical tree on the server.

15. (Previously Presented) The computer program product of claim 14, wherein each node in said first hierarchical tree comprises a source actor; wherein each node in the replicated second hierarchical tree comprises a member actor; and wherein each member actor corresponds to a respective source actor.

16-18. (Cancelled)

19. (Original) The computer program product of claim 14, wherein each said actor comprises a tree of hierarchically linked nodes, said nodes comprising one or more objects.

20. (Original) The computer program product of claim 19, wherein said nodes further comprise one or more nested actors.
21. (Previously Presented) The computer program product of claim 14, wherein said send said dataset comprises sending said dataset using a secure communication network.
22. (Previously Presented) The computer program product of claim 15, wherein said generate a dataset comprises:
  - obtaining inclusion criteria from a parameter set;
  - traversing said first hierarchical tree to determine nodes of said first hierarchical tree that comply with said inclusion criteria;
  - obtaining a pre-initialized object for each of said nodes that comply with said inclusion criteria;
  - generating a client graph comprising said pre-initialized objects.
23. (Previously Presented) The computer program product of claim 22, wherein said traversing said first hierarchical tree is on a node-by-node basis starting from the root node and proceeding through all the leaf nodes.
24. (Previously Presented) The computer program product of claim 22, wherein said dataset is indicative of the full client graph.
25. (Previously Presented) The computer program product of claim 15, wherein said dataset comprises a subgraph for updating the replicated second hierarchical tree of said client.
26. (Original) The computer program product of claim 21, wherein said pre-initialized object comprises methods and attributes for construction and initialization of said client graph.
27. (Currently amended) An apparatus

comprising:

a server comprising one or more server actors linked in a source hierarchical tree,  
wherein each of said one or more actors is a functional component of a  
distributed application;

one or more clients, each of said clients coupled to the server via a respective  
communication interface;

wherein said server is configured to:

generate a dataset for each of said one or more clients, wherein each dataset  
corresponds to a respective subset of the source hierarchical tree;

send each dataset to the respective client via the respective communication  
interface;

wherein each of said one or more clients is configured to replicate a respective  
subset of the source hierarchical tree based on said dataset, wherein to  
replicate a respective subset of the source hierarchical tree, each of said  
one or more clients is further configured to generate one or more peer  
actors on the client;

wherein ~~the~~ said one or more peer actors on the client comprise executable  
code for performing tasks that are in addition to tasks performed by  
the one or more actors on the server; and

provide a communication link between each of said one or more peer actors of the  
replicated second hierarchical tree on the client and a corresponding actor  
of the second hierarchical tree on the server.

28. (Previously Presented) The apparatus of claim 27,  
wherein each node in said source hierarchical tree comprises a source actor;  
wherein each node in each replicated subset of the source hierarchical tree comprises a  
member actor; and  
wherein each member actor corresponds to a respective source actor.

29-31. (Cancelled)

32. (Original) The apparatus of claim 27, wherein each said actor comprises a tree of hierarchically linked nodes, said nodes comprising one or more objects.
33. (Original) The apparatus of claim 32, wherein said nodes further comprise one or more nested actors.
34. (Previously Presented) The apparatus of claim 27, wherein each of said communication interfaces is secured.
35. (Previously Presented) The apparatus of claim 28, wherein said generating a dataset comprises:
- obtaining inclusion criteria from a parameter set;
  - traversing said source hierarchical tree to determine nodes of said source hierarchical tree that comply with said inclusion criteria;
  - obtaining a pre-initialized object for each of said nodes that comply with said inclusion criteria;
  - generating a client graph comprising said pre-initialized objects.
36. (Original) The apparatus of claim 35, wherein said traversing said source hierarchical tree is on a node-by-node basis.
37. (Previously Presented) The apparatus of claim 35, wherein said dataset is indicative of the full client graph.
38. (Previously Presented) The apparatus of claim 28, wherein said dataset comprises a subgraph for updating the replicated subset of the source hierarchical tree of said client.
39. (Original) The apparatus of claim 35, wherein said pre-initialized object comprises methods and attributes for construction and initialization of said client graph.

40. (Currently amended) An apparatus comprising:  
means for generating one or more actors on a server, wherein each of said one or more actors is a functional component of a distributed application;  
means for linking said one or more actors on the server in a first hierarchical tree;  
means for generating a dataset corresponding to a second hierarchical tree, wherein the second hierarchical tree is a subset of the first hierarchical tree;  
means for sending said dataset to a client; and  
means for replicating the second hierarchical tree in said client using said dataset.
41. (Currently Amended) The method of claim 2, wherein a ~~combination of the executable code of~~ first portion of a function to be performed by the distributed application is executed by the member actors and ~~executable code of a second portion of the function to be performed by the distributed application is executed by~~ the source actors ~~is directed toward achieving a common goal.~~
42. (Currently Amended) The method of claim 41, wherein the ~~common goal function to be performed by the distributed application~~ comprises rendering a scene.
43. (Currently Amended) The computer program product of claim 15, wherein a ~~combination of the executable code of~~ first portion of a function to be performed by the distributed application is executed by the member actors and ~~executable code of a second portion of the function to be performed by the distributed application is executed by~~ the source actors ~~is directed toward achieving a common goal.~~
44. (Currently Amended) The computer program product of claim 43, wherein the ~~common goal function to be performed by the distributed application~~ comprises rendering a scene.
45. (Currently Amended) The apparatus of claim 28, wherein a ~~combination of the~~

~~executable code of~~ first portion of a function to be performed by the distributed application is executed by the member actors and ~~executable code of a second portion of~~ the function to be performed by the distributed application is executed by the source actors ~~is directed toward achieving a common goal.~~

46. (Currently Amended) The apparatus of claim 28, wherein the ~~common goal~~ function to be performed by the distributed application comprises rendering a scene.